

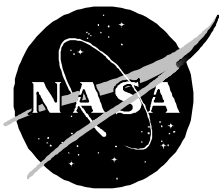
VERSION DESCRIPTION DOCUMENT FOR THE NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)

Release 4.7

NASA-NEMS-VDD-13

PrISMS Contract

August 31, 2000



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Huntsville, AL 35812

**VERSION DESCRIPTION DOCUMENT FOR THE
NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)
RELEASE 4.7**

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
HUNTSVILLE, ALABAMA

August 31, 2000

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FOR THE
NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)
RELEASE 4.7**

Approved by

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
HUNTSVILLE, ALABAMA

August 31, 2000

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1. INTRODUCTION

This Version Description Document (VDD) describes the changes and installation procedures for this release of the NASA Equipment Management System (NEMS). This section identifies the release, describes its purpose, defines its scope, and identifies its contact points.

1.1 IDENTIFICATION OF THE RELEASE

This software release is identified as NEMS, Release 4.7 and has an effective release date of August 31, 2000.

1.2 PURPOSE OF THE RELEASE

This release implements modifications for the following Change Control Requests (CCRs):

<u>CCR</u>	<u>Title</u>
3	Occasional message "report table exceeded" under report selection menu, function 3. Alter currently scheduled jobs
257	Add X19 transaction
258	Wrong inventory date being assigned to records returned from history
259	Inventory by Exception – don't check location and custodian account
260	Total number of transactions for each line
261	View scheduled reports by type
263	Cost Adjustment (Txn 25) on Lease Item
264	Print no data message for report 136
265	Semi-Annual 410 process
267	Report of capital equipment by FSC
270	Establish Wallops Flight Facility as a sub-installation in NEMS
274	Detail Data for report of capital equipment by FSC
831	How to determine which items are in out status on a cyclic inventory
275	Center to another Center to Center Contractor

This release implements modifications necessitated by the following Discrepancy Reports (DRs):

<u>CCR</u>	<u>Title</u>
268	Date Repair Return Due in wrong place

1.3 SCOPE

This VDD provides the functional and technical user of NEMS with information regarding the content, status, and structure of Release 4.7, including the following:

- Changes implemented since Release 4.5;
- Validation procedures to ensure the reliability of release changes;
- References to other documentation affected by this release;
- Detailed software installation instructions.

No waivers are associated with this release.

1.4 CONTACT POINTS

Sustaining Engineering for NEMS is provided through the Consolidation Center (CC) located at Marshall Space Flight Center (MSFC). Questions regarding the functional and/or the technical aspects as well as the installation of this release should be directed to:

The NACC Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673

Email: neal.cantrell@msfc.nasa.gov

FAX: (256) 544-1836

2. FUNCTIONAL INFORMATION

This section includes details regarding functional changes, functional interfaces, critical issues, affected documents, and application system administration.

2.1 FUNCTIONAL CHANGES

Please refer to Appendix C, Functional Change Validation Procedures, for a description of all functional changes related to this release. Appendix D, Installation Instructions, describes all Software PREDICT changes related to this release.

2.2 FUNCTIONAL INTERFACES

This section is not applicable for this release.

2.3 CRITICAL ISSUES

This section is not applicable for this release.

2.4 AFFECTED DOCUMENTS

Operations Guide for the NASA Equipment Management System (NEMS).

2.5 APPLICATION SYSTEM ADMINISTRATION

There are no application system administration changes associated with this release.

3. TECHNICAL INFORMATION

This section includes details regarding technical system interfaces, data dictionary changes, software object changes, and database administration activities.

3.1 TECHNICAL SYSTEM INTERFACES

This section is not applicable with this release.

3.2 DATA DICTIONARY CHANGES

Refer to Appendix D, Section 4.0, for the data dictionary changes in this release.

3.3 SOFTWARE OBJECT CHANGES

Modules affected by this release are included in Appendix D, Section 2.2.

3.4 DATABASE ADMINISTRATION

This section describes the database administration activities for installation of this release.

3.4.1 Release Dataset Names

Refer to Appendix D, Introduction section, for the release dataset names.

3.4.2 Inventory of Objects

Refer to Appendix D, Section 2.1, for an inventory of Natural object types.

3.4.3 Storage Considerations

The changes represented by this release should not affect storage requirements.

3.4.4 Installation Procedures

Refer to Appendix D, Installation Instructions for NEMS Software Release 4.7 for detailed software installation procedures.

3.5 OPERATIONAL PREPARATION

Refer to the procedure described in Appendix D for assistance in preparing for proper installation and operational use of this release.

4. KNOWN AND OPEN PROBLEMS

There are no known or open problems related to this release.

APPENDIX A - ABBREVIATIONS AND ACRONYMS

CC	Consolidation Center
CCR	Change Control Request
CSC	Computer Sciences Corporation
DBA	Database Administrator
DR	Discrepancy Report
FAX	Electronic Facsimile Transmission
IRM	Information Resources Management
JCL	Job Control Language
MSFC	Marshall Space Flight Center
NACC	NASA Automated Data Processing (ADP) Consolidation Center
NASA	National Aeronautics and Space Administration
NEMS	NASA Equipment Management System
NPDMS	NASA Property Disposal Management System
SESAAS	Sustaining Engineering Support for Agencywide Administrative Systems
VDD	Version Description Document

APPENDIX B - GLOSSARY

Database Administration

Responsibility for maintaining the physical database environment.

Implementation

The process by which a NASA site installs a NASA software release and places it into operational use.

Operational Preparation

Preparation by a NASA site for installation and use of a NASA application release.

System Administration

Responsibility for administrative functions such as application security and table data maintenance associated with a NASA application.

APPENDIX C - FUNCTIONAL CHANGE VALIDATION PROCEDURES

Index of validation procedures for changes in this release:

Section	CCR	Title
1.0	3	Occasional message "report table exceeded" under report selection menu, function 3. Alter currently scheduled jobs
2.0	257	Add X19 transaction
3.0	258	Wrong inventory date being assigned to records returned from history
4.0	259	Inventory by Exception – don't check location and custodian account
5.0	260	Total number of transactions for each line
6.0	261	View scheduled reports by type
7.0	263	Cost adjustment (Txn 25) on Lease Item
8.0	264	Print no data message for report 136
9.0	265	Semi-Annual 410 process
10.0	267	Report of capital equipment by FSC
11.0	268	Date Repair Return Due in wrong place
12.0	270	Establish the Wallops Flight Facility as a sub-installation in NEMS
13.0	274	Detail Data for report of capital equipment by FSC
14.0	831	How to determine which items are in out status on a cyclic inventory
15.0	275	Center to another Center to Center Contractor

Details for the validation procedures follow:

1.0 CCR 3 – Occasional message “report table exceeded” under report selection menu, function 3. Alter currently scheduled jobs.

If the message "report table exceeded" is given, the users cannot view if reports they scheduled to run that evening are actually on the report table. This situation almost always occurs on the NEMS month-end closing date. It is most critical that we receive our month-end reports. If we can't see the table and for some reason the reports we scheduled are not on the report table (like problem KF0002), then our month-end reports will not be run and this monthly data will not be accessible anymore to call reports up again since at month-end closing the data is dumped into the yearly file.

Description of Change

Code was changed to allow up to 200 reports to be viewed at one time. See CCR 261 for more changes to this process.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

Schedule 200 reports to be run with an effective date less than or equal to today's date.

- In NEMS view the scheduled reports to be run.
Expected Results: The 200 scheduled reports will be displayed 10 at a time.
- In NEMS while viewing the scheduled reports enter a SEQ NUMBER of 201.
Expected Results: A message will be displayed indicating that an invalid sequence number has been entered.
- In PCM view the scheduled reports to be run.
Expected Results: The 200 scheduled reports will be displayed 10 at a time.
- In PCM, while viewing the scheduled reports, enter a SEQ NUMBER of 201.
Expected Results: A message will be displayed indicating that an invalid sequence number has been entered.

See CCR 261 for further testing on this process.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMS</u>		
RPTSUBP1	Alter Scheduled Reports	Program
<u>PCM</u>		
RPTSUBP1	Alter Scheduled Reports	Program
RPTSUBM1		Map

2.0 CCR 257 - Add X19 transaction.

NPDMS is adding a new transaction to indicate that an item has been found (after it has been surveyed - txn 71) and is being processed in NPDMS.

Description of Change

Table 620 was changed to add the X19 transaction.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

NOTE: Appendix D, Section 7.1 Update transaction table 620 must be executed before this validation is performed.

- Perform Table File by Table Number Adhoc for table 620.
Expected Results: Transaction X19 will be included in table 620.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEU620P1	Modify transaction from table menu 620	Program

3.0 CCR 258 - Wrong inventory date being assigned to records returned from history.

Date inventoried field is being populated with DATE-NASA-ACQUIRED in the NEMSINV status file and NEMS-INV file, causing I19 transactions to not appear on the Inventory Transaction Statistical Summary report (752).

Description of Change

A change was made to populate the Date Inventoried field with the date of the transaction.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform an I19 transaction on an ECN that has been deleted with transaction 71.
Expected Results: The Date Inventoried will be populated with the date of the transaction.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
TRNIADP1	Add transaction processor	Program

4.0 CCR 259 - Inventory by Exception - don't check location and custodian account.

For Inventory by Exception NEMS transactions (26, 31, 39, 41, 43, 45, and 46) and PCM (C26, C31, C41, C43, and C45) the discrepancy flag is not being removed when the location and custodian account are different.

Description of Change

A change was made to clear the discrepancy flag when the location and custodian account are different for Inventory by Exception transactions.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform a NEMS Inventory by Exception transaction (26, 31, 39, 41, 43, 45, or 46) on an ECN that is an underage in an active inventory.
Expected Results: The discrepancy flag will be removed.
- Perform a PCM Inventory by Exception transaction (C26, C31, C41, C43, or C45) on an ECN that is an underage in an active inventory.
Expected Results: The discrepancy flag will be removed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMS</u>		
TRNIEXNA	Inventory by Exception	Subpgm
TRN031P1	Change Transaction 31 (User Number Change)	Program
<u>PCM</u>		
TRNIEXNA	Inventory by Exception	Subpgm

5.0 CCR 260 - Total number of transactions for each line.

Reports 411 and 412 contain the total cost for each transaction but do not include the total number of transactions.

Description of Change

Code was changed to add the total number of transactions for each line to the 411 and 412 reports.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Schedule and run reports 411 and 412.
Expected Results: Reports 411 and 412 should run successfully and print the total number of transactions for each line.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
RPT411P2	1324 - Controlled Equipment Report (Summary)	Program
RPT412P1	1324 – Controlled Equipment Report (Detail)	Program

6.0 CCR 261- View Scheduled reports by type.

CCR 3 changes the number of reports available for viewing to 200 (Reports menu option 3. Alter currently scheduled jobs). There could still be a possibility of more than 200 reports being scheduled. Also there is not a field that shows the total number of reports scheduled.

Description of Change

Code was changed so that if more than 200 reports are scheduled to be run for a certain date, 5 different options (by Installation, Standard Reports, On Request Reports, Adhoc Reports, and by Userid) are displayed for the user to select from. This only displays 200 or less reports for each option.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

Schedule at least 201 reports to be run with an effective date less than or equal to today's date. (This test should be run after CCR 3).

- In NEMS try to Alter Currently Scheduled Jobs.
Expected Results: A window will be displayed showing the number of reports scheduled to be run tonight and giving the user the option to select from 5 options to display reports.
 - Select option 1 (Reports by Installation) and enter an installation to view the reports by.
Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the reports for the selected installation.
 - Select option 2 (Standard Reports).
Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the Standard Reports.
 - Select option 3 (On Request Reports).
Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the On Request Reports.
 - Select option 4 (Adhoc Reports).
Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the Adhoc Reports.
 - Select option 5 (Reports by Userid) and enter a Userid to view the reports by.
Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the reports for the selected Userid.
- In PCM try to Alter Currently Scheduled Jobs.
Expected Results: A window will be displayed showing the number of reports scheduled to be run tonight and giving the user the option to select from 5 options to display reports.
 - Select option 1 (Reports by Installation) and enter an installation to view the reports by.

Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the reports for the selected installation.

- Select option 2 (Standard Reports).

Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the Standard Reports.

- Select option 3 (On Request Reports).

Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the On Request Reports.

- Select option 4 (Adhoc Reports).

Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the Adhoc Reports.

- Select option 5 (Reports by Userid) and enter a Userid to view the reports by.

Expected Results: The Jobs Scheduled to Run Tonight screen will be displayed showing the reports for the selected Userid.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMS</u>		
RPTSUBP1	Alter Scheduled Jobs	Program
RPTSUBM1		Map
RPTSUBNA	Display Scheduled Reports Selection	Subpgm
<u>PCM</u>		
RPTSUBP1	Alter Scheduled Jobs	Program
RPTSUBM1		Map
RPTSUBM2		Map
RPTSUBNA	Display Scheduled Reports Selection	Subpgm

7.0 CCR 263 - Cost Adjustment (Txn 25) on Lease Item.

Executing a Cost Adjustment (Txn 25) on a Lease Item is causing the Cap Sens Code to be changed from an 'X'.

Description of Change

Code was changed to keep the CAP-SENS-CODE of 'X' from being changed to another CAP-SENS-CODE.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- For an ECN with a COST of \$100,000 and CAPITALIZATION-AMT of \$100,000 with a CAP-SENS-CODE of 'P', perform a Cost Adjustment (txn 25) to change the COST to \$95,000 and CAPITALIZATION-AMT to \$0.
Expected Results: The CAP-SENS-CODE will change to an 'N'.
- For an ECN with a COST of \$90,000 and CAPITALIZATION-AMT of \$0 with a CAP-SENS-CODE of 'N', perform a Cost Adjustment (txn 25) to change the COST to \$85,000.
Expected Results: The CAP-SENS-CODE will remain an 'N'.
- For an ECN with a COST of \$180,000 and CAPITALIZATION-AMT of \$180,000 with a CAP-SENS-CODE of 'M', perform a Cost Adjustment (txn 25) to change the COST to \$75,000 and CAPITALIZATION-AMT to \$0.
Expected Results: The CAP-SENS-CODE will change to a 'Q'.
- For an ECN with a COST of \$70,000 and CAPITALIZATION-AMT of \$0 with a CAP-SENS-CODE of 'Q', perform a Cost Adjustment (txn 25) to change the COST to \$65,000.
Expected Results: The CAP-SENS-CODE will remain a 'Q'.
- For an ECN with a COST of \$100,000 and CAPITALIZATION-AMT of \$0 with a CAP-SENS-CODE of 'X', perform a Cost Adjustment (txn 25) to change the COST to \$96,000.
Expected Results: The CAP-SENS-CODE will remain an 'X'.
- For an ECN with a COST of \$99,000 and CAPITALIZATION-AMT of \$0 with a CAP-SENS-CODE of 'X', perform a Cost Adjustment (txn 25) to change the COST to \$98,000.
Expected Results: The CAP-SENS-CODE will remain an 'X'.
- For an ECN with a COST of \$101,000 and CAPITALIZATION-AMT of \$101,000 with a CAP-SENS-CODE of 'P', perform a Cost Adjustment (txn 25) to change the COST to \$900 and CAPITALIZATION-AMT to \$0.
Expected Results: The CAP-SENS-CODE will change to an 'N'.
- For an ECN with a COST of \$197,000 and CAPITALIZATION-AMT of \$197,000 with a CAP-SENS-CODE of 'M', perform a Cost Adjustment (txn 25) to change the COST to \$900 and CAPITALIZATION-AMT to \$0.
Expected Results: The CAP-SENS-CODE will change to an 'X'.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
CAPSENS1	Change Capitalization or Cost with Cap Sens Change	Subpgm

8.0 CCR 264 - Print no report message for report 136.

There was no leased property valued at \$100K or above in FY1999. However, the report did not reflect that no records were found.

Description of Change

Code was changed to print a NO DATA message for both sections of the report when there are no records to print.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

There must be no records that should appear on report 136.

- Schedule and run report 136 (Leased Equipment Subject to Capitalization)

Expected Results: The report should run correctly and there should be no data messages for both sections of the report.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
RPT136P1	Leased Equipment Subject to Capitalization	Program

9.0 CCR 265 - Semi-Annual 410 process.

Currently the 410 process is run monthly. The 410 reports are accumulated and submitted to HQ on a 6 month basis.

Description of Change

Code was changed to create a NEMS-YEARLY-TRANS file to allow the 410, 411, and 412 reports to be run on a semi-annual basis.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Schedule and run report 410 as an on-request report.
Expected Results: The report should run successfully as an on-request report.
- Schedule and run report 410 as a scheduled semi-annual report.
Expected Results: The report should run successfully as a semi-annual report.
- Schedule and run report 411 as a scheduled semi-annual report.
Expected Results: The 410 and 411 reports should run successfully.
- Schedule and run report 412 as an on-request report.
Expected Results: The report should run successfully.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
JCLGENP3	JCL Generator – Maintenance	Program
RPT410P1	1324 – Controlled Equipment Report	Program
MNTSELP1	On-Request Maintenance Selection Menu Program	Program
MSD001P1	Copy NEMS-DAILY-TRANS to NEMS-MONTH-TRANS file	Program
MSA003P1	Copy NEMS-YEARLY-TRANS to NEMS-CUMM-TRANS and purge	Program
PMA003P1	Archive Yearly Transaction File	Program
PRM410P1	1324 – Controlled Equipment Report	Program
PRM411P1	1324 – Controlled Equipment Report	Program
UPTBLS02	Update Table	Program

10.0 CCR 267 - Report of capital equipment by FSC.

Currently a report is produced from NEMS Central that lists capital equipment by FSC with 21 yearly breakdowns.

Description of Change

Code was changed to create a yearly backup file to be used to create a report of capital equipment by FSC with 21 yearly breakdowns.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Run program **NEUUEQPA** in batch.
Expected Results: A yearly backup file will be created.
- Run program **NEUCEQPA** in batch.
Expected Results: A report of capital equipment will be produced by FSC with 21 yearly breakdowns.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEUUEQPA	NEMS Equipment file backup	Program
NEUCEQPA	NEMS Capital Equipment by FSC	Program

11.0 CCR 268 – Date Repair Return Due in wrong place.

The Date Repair Return Due is showing up after the Heritage Code on the Equipment Record adhoc.

Description of Change

Code was changed to move the Date Repair Return Due field back to its original position.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Execute the Equipment adhoc by ECN for an ECN that has a Date Repair Return Due.
Expected Results: Page 2 of the Equipment Record should show the Date Repair Return Due after the field header.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
ADH920P1	Equipment File Adhoc by ECN	Program

12.0 CCR 270 – Establish the Wallops Flight Facility as a sub-installation in NEMS.

Establish the Wallops Flight Facility as a sub-installation in NEMS.

Description of Change

Code was changed to add 0506 to table 252.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Run program UPTBLS02 (See Appendix D, Section 7.2)
Expected Results: 0506 (Wallops Flight Facility) should now be on table 252 (Installation Number table).

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
UPTBLS02	Update Table	Program

13.0 CCR 274 – Detail Data for report of capital equipment by FSC.

The report of capital equipment by FSC is currently being produced by installation level. In support of the report of capital equipment by FSC, HQ would like to see the following fields for each record: Installation Number, ECN, Item Name, FSC, Capitalized Value, Date Acquired (the same date used in the calculation), Acquisition Document Control Number, and Heritage Code. HQ also wants a report with the same fields but for Heritage Assets only.

Description of Change

Code was changed in one program and two new programs were added to create the reports.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Run program **NEUCEQPA** in batch.
Expected Results: A report of capital equipment will be produced by FSC (summary).
- Run program **NEUCEQPB** in batch.
Expected Results: A report of capital equipment will be produced by FSC with detail.
- Run program **NEUCEQPC** in batch.
Expected Results: A report of equipment will be produced by Heritage Code with only Heritage Assets.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEUCEQPA	NEMS Capital Equipment by FSC (Summary)	Program
NEUCEQPB	NEMS Capital Equipment by FSC (Detail)	Program
NEUCEQPC	NEMS Equipment by Heritage Code (Detail)	Program

14.0 CCR 831 – How to determine which items are in out status on a cyclic inventory

Equipment in out status must be verified to complete the cyclic physical inventory, NHB 4200.1c, para 5102.a. Since equipment coded as out does not appear as a discrepancy, a special effort must be made to determine which items need to be verified.

Description of Change

Code was changed to create a report of equipment that is in an 'out' status.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Process an inventory account or location. Execute the Batch process.
Expected Results: Report 772 should execute correctly and list equipment that is in an 'out' status.
- Schedule and run the 772 report.
Expected Results: Report 772 should execute correctly and list equipment that is in an 'out' status.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMS</u>		
INVBBIP2	Bar Code Data against Equipment File (Part 2)	Program
INVBBIP5	Bar Code Data against Equipment File (Part 2)	Program
RPT772P1	Items in Out Status on a Cyclic Inventory	Program
<u>INV</u>		
PRM772P1	Items in Out Status on a Cyclic Inventory	Program

15.0 CCR 275 – Center to another Center to Center Contractor

Currently when a project is transferred from one center to another center's contractor all of the equipment must be transferred with several NEMS transactions (65 to delete from original center, 04 to add to gaining center, and 67 to transfer to the gaining center's contractor).

Description of Change

A stand alone process was developed that will enable transactions to be generated using an input file of ECNs.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Run program NEUTRN65 in batch mode.
Expected Results: Sequential file of the NEMS Equipment records to transfer to another center. Records placed in NEMS-MONTH-TRANS, NEMS-YEARLY-TRANS, and NEMS-HISTORY.
- Run program NEUTRN04 in batch mode.
Expected Results: ECNs were added to the equipment file as well as NEMS-MONTH-TRANS and NEMS-YEARLY-TRANS.
- Run program NEUTRN67 in batch mode.
Expected Results: A record was placed in NEMS-MONTH-TRANS, NEMS-YEARLY-TRANS, and NEMS-HISTORY. ECNs were also removed from NEMS-EQUIPMENT.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEUTRN67	Transaction 67	Program
NEUTRN04	Transaction 04	Program
NEUTRN65	Transaction 65	Program

APPENDIX D - INSTALLATION INSTRUCTIONS AND CHECKLIST FOR NEMS SOFTWARE RELEASE 4.7

Introduction

Release information:

System Name: NEMS
Release Number: 4.7
Release Date: August 31, 2000
Effective Date: Immediately

In case of installation problems, contact the NASA Automated Data Processing (ADP) Consolidation Center (NACC) Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

The following datasets are located on the transient storage DASD volumes under the following data sets names:

xxMOV.NEMS.PROD.R470.R0800.DOC
xxMOV.NEMS.PROD.R470.R0800.PRD
xxMOV.NEMS.PROD.R470.R0800.SRC

Where "xx" is replaced by the appropriate NASA Center designation.

AR - ARC
DF - DFRC
GS - GSFC
HQ - HQ
J5 - JSC
KS - KSC
LA - LaRC
LE - GRC (Glenn)
MS - MSFC
SS - SSC

Installation Sequence

The sequence in which the installation of this release should occur is provided in the following list. A checklist is provided in section 9.0 to assist in tracking the installation of this release.

- 1.0 Back Up Existing Data
- 2.0 Copy Source/Object Code
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
- 8.0 Local JCL Mods
- 9.0 Installation Checklist

1.0 Back Up Existing Data

It is advisable to back up all NEMS files as a precautionary measure prior to installation.

2.0 Copy Source/Object Code

2.1 Copy Source Code

- A. Source code is installed in three separate libraries. Source code for programs modified in this release version were unloaded in the NATUNLD format, these programs all have specific destination libraries as shown below. All the NEMS programs have a destination of NEMS; NEMSINV programs have a destination of NEMSINV and NEMSPCM programs have a destination of NEMSPCM.

1. Load the NEMS source library from the dataset
xxMOV.NEMS.PROD.R470.R0800.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMS programs:

- | | |
|-------------|--|
| 1. ADH920P1 | Equipment file adhoc by ECN |
| 2. CAPSENS1 | Change Capitalization or Cost with Cap Sens Change |
| 3. INVBBIP2 | Bar Code Data against Equipment File (Part 2) |
| 4. INVBBIP5 | Bar Code Data against Equipment File (Part 2) |
| 5. JCLGENP3 | JCL Generator – Maintenance |
| 6. MNTSELP1 | On-Request Maintenance Selection Menu Program |
| 7. MSA003P1 | Copy NEMS-YEARLY-TRANS to NEMS-CUMM-TRANS
and purge |
| 8. MSD001P1 | Copy NEMS-DAILY-TRANS to NEMS-MONTH-TRANS
file |

9. NEU620P1	Modify transaction from table menu 620
10. NEUCEQPA	NEMS Capital Equipment by FSC
11. NEUCEQPB	NEMS Capital Equipment by FSC (Detail)
12. NEUCEQPC	NEMS Equipment by Heritage Code (Detail)
13. NEUTRN67	Transaction 67
14. NEUTRN04	Transaction 04
15. NEUTRN65	Transaction 65
16. NEUUEQPA	NEMS Equipment file backup
17. NEMS	NEMS Start Program
18. PMA003P1	Archive Yearly Transaction File
19. PRM410P1	1324 – Controlled Equipment Report
20. PRM411P1	1324 – Controlled Equipment Report
21. RPT136P1	Leased Equipment Subject to Capitalization
22. RPT410P1	1324 – Controlled Equipment Report
23. RPT411P2	1324 - Controlled Equipment Report (Summary)
24. RPT412P1	1324 – Controlled Equipment Report (Detail)
25. RPT772P1	Items in Out Status on a Cyclic Inventory
26. RPTSUBM1	
27. RPTSUBNA	Display Scheduled Reports Selection
28. RPTSUBP1	Alter Scheduled Reports
29. TRNIEXNA	Inventory by Exception
30. TRN031P1	Change Transaction 31 (User Number Change)
31. UPTBLS02	Update Table

will be loaded to the application library NEMS, replacing any existing programs of the same name.

2. Load the NEMSINV source library from the dataset:
xxMOV.NEMS.PROD.R470.R0800.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMSINV programs:

1. INV Inventory Start Up Program
2. PRM772P1 Items in Out Status on a Cyclic Inventory
3. TRNIADP1 Add transaction processor

will be loaded to the application library NEMSINV, replacing any existing programs of the same name.

3. Load NEMSPCM source library from the dataset:
xxMOV.NEMS.PROD.R470.R0800.SRC.

The source programs were unloaded using the Natural utility NATUNLD. The NEMSPCM Programs:

1. PCMMAP
2. RPTSUBM1
3. RPTSUBM2
4. RPTSUBNA Display Scheduled Reports Selection
5. RPTSUBP1 Alter Scheduled Reports
6. TRNIEXNA Inventory by Exception

will be loaded to the application library NEMSPCM, replacing any existing programs of the same name.

The source module counts included in this release are listed below:

Natural Source Modules by Type	Count
GLOBAL DATA AREA	0
LOCAL/PARAM DATA AREA	0
MAPS	4
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	5
PROGRAMS	31
COPYCODE	0
TEXT	0
PROCESS	0
MISCELLANEOUS OBJECTS	0
Total:	40

2.2 List of Source Code Modifications

The following are the modules added, modified, and deleted. **(NOTE: Modules in Bold have changed since the Beta release.)**

Added Modules:

1. MSA003P1 Program
2. **NEUCEQPA** Program
3. **NEUCEQPB** Program
4. **NEUCEQPC** Program
5. **NEUTRN67** Program
6. **NEUTRN04** Program
7. **NEUTRN65** Program
8. NEUUEQPA Program
9. PMA003P1 Program

10.PRM410P1	Program
11.PRM411P1	Program
12.PRM772P1	Program
13.RPT772P1	Program
14.RPTSUBM1	Map
15.RPTSUBM2	Map
16.RPTSUBNA	Subpgm – NEMS
17.RPTSUBNA	Subpgm - PCM

Modified Modules:

1. ADH920P1	Program
2. CAPSENS1	Subpgm
3. INV	Program
4. INVBBIP2	Program
5. INVBBIP5	Program
6. JCLGENP3	Program
7. MNTSELP1	Program
8. MSD001P1	Program
9. NEMS	Program
10.NEU620P1	Program
11.PCMMAP	Map
12.RPT136P1	Program
13.RPT410P1	Program
14.RPT411P2	Program
15.RPT412P1	Program
16.RPTSUBM1	Map
17.RPTSUBP1	Program
18.RPTSUBP1	Program
19.TRN031P1	Program
20.TRNIADP1	Program
21.TRNIEXNA	Subpgm - NEMS
22.TRNIEXNA	Subpgm - PCM
23.UPTBLS02	Program

Deleted Modules:

None

2.3 Copy Object Modules

Not applicable with this release.

3.0 Pre-Predict Data Conversion

Not applicable with this release.

4.0 Install Predict

4.1 Data Dictionary Changes

This release will include the new enhancements for Version 4.7.0. Details for changes in this release can be found under Section 4.1.3 Physical File Changes or by performing Predict reporting on the keyword NEMS-4.7.0.

Use SYSDICBE to load the PREDICT modifications from the dataset:
xxMOV.NEMS.PROD.R470.R0800.PRD.

The following NEMS DDMs should be generated after the PREDICT load is completed.

NEMS-YEARLY-TRANS

*** NOTE *** a Natural Security UPDATE link will need to be added for the
NEMS-YEARLY-TRANS file, linking it to the NEMS library

4.1.1 Inventory of Objects

The object types and inventory listed below represent a comprehensive count of the Predict object modules for this release.

PREDICT Objects by Type:

Keyword	-	1
ADABAS Files and Views	-	1

4.1.2 Storage Considerations

This file will begin empty and records will be added in conjunction with daily business. While center business will determine it's ultimate size, the UI, NI and DS proportions should be very similar to the NEMS-MONTH-TRANS file.

4.1.3 Physical File Changes

Using ADALOD Add the following file:

5.0 Catalog Source Code

The following modules should be changed before the CATALOG is run. Modules NEMS, INV000P0, and MNUC00P1 need to be modified at each center to contain the correct contact name and phone number for each center. Replace the ?? in MSD008P1 and MSD008P5 with your installation number.

Run a batch job to catalog (CATALL) all modules in the NEMS library using the NASA Batch Standard Parameters replacing the existing PS and LS with the following values: PS=23 and LS=80. **It is not necessary** to catalog the Global Data Area (GDA).

You should receive 38 NATURAL 0303 errors for modules that begin with RPT* that concern page overflow and 32 programs will produce NATURAL 0002 errors. Program MSC005P1 will not compile. There should be a total of 71 NATURAL errors.

A list of errors found above and dispositions of these results follows:

- To compile the NATURAL 0303 errors correctly, run another CATALOG for the RPT* modules in the NEMS library using the NASA Batch Standard Parameters. You should receive 12 NATURAL 0002 errors. Ignore the 0002 errors because these objects are dynamic.
- The 32 NATURAL 0002 errors from the first CATALOG are to be **IGNORED** because these objects are dynamic.
- MSX001P1 will only compile for centers that use the NEMS-PRIOR-MONTH file.
- **IGNORE** any errors for program MSC005P1.

Run a batch job to catalog (CATALL) all modules in the NEMSINV library using the NASA Batch Standard Parameters. **It is not necessary** to catalog the Global Data Area (GDA). There should be no errors received.

Run an online catalog (CATALL) on module TRNI34P1 and TRNILOP3 to prevent problems with access to the second screen.

Run a batch job to catalog (CATALL) all modules in the NEMSPCM library using the NASA Batch Standard Parameters. **It is not necessary** to catalog the Global Data Area (GDA). There should be one NATURAL 0043 error received. See Section 9.0 Installation Checklist for instructions on how to correct these errors.

After all objects are compiled, the NEMS application will run under the NASA On-line Standard Parameters.

6.0 Post-Predict Data Conversion

Not applicable with this release.

7.0 Perform Release-Specific Procedures

7.1 Update transaction table 620

Run the following program (NEU620P1) (online or batch) to add transaction X19.

7.2 Run Program UPTBLS02

Run UPTBLS02 (online or batch) to update tables S05 (Report Number table), S08 (Maintenance jobs table), S09 (Inventory Report table, S13 (Inventory Report table), and 252 (Installation Number).

8.0 Local JCL Mods

Other JCL changes may be necessary due to differences in each center's JCL. Changes are in **bold**:

```
JCLDD 100700      X //CMWKF14 DD DSN=MSIRM.NEMS.NTS.TRANSFER(+1),DISP=(,CATLG,DELETE),
JCLDD 100710      X //          DCB=(NACCADM.MD,RECFM=FB,LRECL=720,BLKSIZE=5760),
JCLDD 100720      X //          UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE)
JCLDD08 100740    X //CMWKF18 DD DSN=MSIRM.NEMSDD.RPT410.DATA08,
JCLDD08 100742    X //          UNIT=SYSDA,SPACE=(CYL,(5,5),RLSE),
JCLDD08 100744    X //          DCB=(RECFM=FB),DISP=(OLD,KEEP,KEEP)
JCLDD81 100750    X //CMWKF18 DD DSN=MSIRM.NEMSDD.RPT410.DATA81,
JCLDD81 100752    X //          UNIT=SYSDA,SPACE=(CYL,(5,5),RLSE),
JCLDD81 100754    X //          DCB=(RECFM=FB),DISP=(OLD,KEEP,KEEP)
JCLDD 100760      X //CMWKF19 DD DUMMY
JCLDD 100780XXXX X XX//CMSYNIN DD *
```

9.0 Installation Checklist

- 1.0 Back Up Existing Data
- 2.1 Copy Source Code
- 4.0 Install Predict
- 5.0 Catalog Source Code
 - Update the Password to the NEMS-PCM-AUTH file in PCM programs:
MNUC00P1, MNUC01P1; RPTSUBP1; TRNC00P1; TRNC26P1; TRNC52P1;
TRNUPDP1. This step is optional if the Center chooses not to put a password on
the NEMS-PCM-AUTH file.
 - A. Find out from your DBA the ADABAS Security password assigned to the NEMS-
PCM-AUTH file at your Installation.
 - B. Logon to the NEMSPCM and use the Scan utility to search the NEMSPCM
programs listed above for the word:
PASSWORD = 'NEMSPCM' and replace it with:
PASSWORD = 'Your site Password'. This scan and replace will change all
references to the password, found in the newly released NEMS Release Version
4.7.0 modules, with your Installation's password.
- 7.0 Perform Release-Specific Procedures
- 7.1 Update transaction table 620
- 7.2 Run program UPTBLS02
- 8.0 Local JCL Mods

APPENDIX E - PROCEDURE FOR CREATING ANNUAL REPORT OF CAPITAL EQUIPMENT BY FSC

(Note: This is not a regular NEMS report and must be executed outside of the NEMS nightly cycle.)

Each NASA center should run the program NEUUEQPA to create a backup file of the NEMS Equipment File at fiscal year end after all NEMS data has been completed and closed out for the year.

Then NEUCEQPA should be run using the backup file as input. NEUCEQPA creates a work file (flat file) of total items and total capital value by FSC of all capitalized items on the NEMS Equipment Backup File. The data is broken down by age; capital equipment that is less than one year old, 1 to 2 years old, 2 to 3 years old, 3 to 4 years old, 4 to 5 years old, 5 to 6 years old, 6 to 7 years old, 7 to 8 years old, 8 to 9 years old, 9 to 10 years old, 10 to 11 years old, 11 to 12 years old, 12 to 13 years old, 13 to 14 years old, 14 to 15 years old, 15 to 16 years old, 16 to 17 years old, 17 to 18 years old, 18 to 19 years old, 19 to 20 years old and over 20 years old. Subtotals are generated at each year category break and a grand total is generated at the end of the data.

NEUCEQPA uses the DATE-INST-ACQ date on the NEMS Equipment Backup File to compare against #CHECK-DATE (which is set up in the Local Data Area and initialized to 20001001) to determine the age of the capital equipment. Each year, before executing this program, the value of #CHECK-DATE should be changed to ensure accurate results. For example, before executing the program for fiscal year end 2001, #CHECK-DATE should be changed to 20011001 and then NEUCEQPA should be stowed.

After NEUCEQPA has run and it has been determined that a good output file was created, the File Transfer Protocol (FTP) can be used to migrate the ASCII flat file from the mainframe to a location on your PC. When the file has been moved from mainframe to PC, it may be opened using Microsoft Excel with the Text Import Wizard. This process involves 3 steps: Step 1 of 3 – click on Delimited, then click next; Step 2 of 3 – click on the Semicolon (delimitation character used in the flat file to separate the columns of data), then click next; Step 3 of 3 – click General Column data format, then click finish. The Excel file may then be saved. At Filename save, enter a filename with an extension of .xls and Save as type Microsoft Excel Worksheet. The spreadsheet may then be formatted as desired with the page and column headings, date of report and gridlines.

The following example JCL runs the program to create the backup of the Equipment file:

```
//IRNEMSBK JOB (AGAOHNEMS002,4485), 'NEMS BKUP', CLASS=D,
//          NOTIFY=MSJLV, MSGCLASS=A
//*****
//* UNLOADS THE NEMS EQUIPMENT FILE                                     *
//*****
//DVNPDMS   EXEC N01Z
//CMPRINT   DD SYSOUT=(A,P3103102)
//CMWK01    DD DSN=MSIRM.NEMSDD.EQUIPBAK,
//          DISP=(NEW,KEEP,KEEP),
//          DCB=(RECFM=FB,LRECL=917,BLKSIZE=9170),
//          SPACE=(CYL,(5,3),RLSE),
//          UNIT=SYSDA
//CMSYNIN   DD *
NEDEVL,MSJLV
%*
MSJLV
NEUUEQPA
FIN
/*
//
```

The following example JCL runs the program to create the Capital Equipment by FSC report:

```
//IRNEMSCE JOB (AGAOHNEMS002,4485), 'CAP EQUIP', CLASS=D,
//          NOTIFY=MSJLV, MSGCLASS=A
//*****
//* READS THE NEMS EQUIPMENT FILE BACKUP                             *
//*****
//DVNPDMS   EXEC N01Z
//CMPRINT   DD SYSOUT=(A,PSBOK1C)
//CMWK01    DD DSN=MSIRM.NEMSDD.EQUIPBAK,
//          DISP=(SHR,KEEP,KEEP)
//CMWK02    DD DSN=MSIRM.NEMSDD.CCR267,
//          DISP=(NEW,KEEP,DELETE),
//          DCB=(RECFM=VB,LRECL=50,BLKSIZE=5000),
//          SPACE=(TRK,(5,3),RLSE),
//          UNIT=SYSDA
//CMSYNIN   DD *
NEDEVL,MSJLV
%*
MSJLV
NEUCEQPA
FIN
/*
//
```

NEUCEQPB creates a work file (flat file) of the detail listing for the ECNs listed on the report produced from NEUCEQPA. The data is broken down by age; capital equipment that is less than one year old, 2 years old, 3 years old, 4 years old, 5 years old, 6 years old, 7 years old, 8 years old, 9 years old, 10 years old, 11 years old, 12 years old, 13 years old, 14 years old, 15 years old, 16 years old, 17 years old, 18 years old, 19 years old, 20 years old, and over 20 years old. Subtotals are generated at each year category break and a grand total is generated at the end of the data.

NEUCEQPB uses the DATE-INST-ACQ field on the NEMS Equipment Backup File to compare against #CHECK-DATE (which is set up in the Local Data Area and initialized to 20001001) to determine the age of the capital equipment. Each year, before executing this program, the value of #CHECK-DATE should be changed to ensure accurate results. For example, before executing the program for fiscal year end 2001, #CHECK-DATE should be changed to 20011001 and then the program should be stowed.

After NEUCEQBP runs and it has been determined that a good output file was created, the File Transfer Protocol (FTP) can be used to migrate the ASCII flat file from the mainframe to a location on your PC. When the file has been moved from mainframe to PC, it may be opened using Microsoft Excel with the Text Import Wizard. This process involves 3 steps: Step 1 of 3 – click on Delimited, then click next; Step 2 of 3 – click on the Semicolon (delimitation character used in the flat file to separate the columns of data), then click next; Step 3 of 3 – click General Column data format, then click finish. The Excel file may then be saved. At Filename save, enter a filename with an extension of .xls and Save as type Microsoft Excel Worksheet. The spreadsheet may then be formatted as desired with the page and column headings, date of report and gridlines.

The following is an example of the JCL used to run this program:

```
//IRNEMSCE JOB (AGAOHNEMS002,4485),'CAP EQUIP',CLASS=D,
//          NOTIFY=MSJLV,MSGCLASS=A
//*****
//* READS THE NEMS EQUIPMENT FILE BACKUP                                     *
//*****
//DVNPDM5   EXEC N01Z
//CMPRINT DD SYSOUT=(A,PSBOK1C)
//CMWKF01   DD DSN=MSIRM.NEMSDD.EQUIPBAK,
//          DISP=(SHR,KEEP,KEEP)
//CMWKF02   DD DSN=MSIRM.NEMSDD.CCR267B,
//          DISP=(NEW,KEEP,DELETE),
//          DCB=(RECFM=VB,LRECL=50,BLKSIZE=5000),
//          SPACE=(TRK,(5,3),RLSE),
//          UNIT=SYSDA
//CMSYNIN   DD *
NEDEV1,XXXXX
%*
XXXXX
NEUCEQPB 0808
FIN
/*
//
```

NEUCEQPC creates a work file (flat file) of the detail listing for the Heritage Asset ECNs listed on the report produced from NEUCEQPA. The data is broken down by age; capital equipment that is less than one year old, 2 years old, 3 years old, 4 years old, 5 years old, 6 years old, 7 years old, 8 years old, 9 years old, 10 years old, 11 years old, 12 years old, 13 years old, 14 years old, 15 years old, 16 years old, 17 years old, 18 years old, 19 years old, 20 years old, and over 20 years old. Subtotals are generated at each year category break and a grand total is generated at the end of the data.

NEUCEQPC uses the DATE-INST-ACQ field on the NEMS Equipment Backup File to compare against #CHECK-DATE (which is set up in the Local Data Area and initialized to 20001001) to determine the age of the capital equipment. Each year, before executing this program, the value of #CHECK-DATE should be changed to ensure accurate results. For example, before executing the program for fiscal year end 2001, #CHECK-DATE should be changed to 20011001 and then the program should be stowed.

After NEUCEQPC runs and it has been determined that a good output file was created, the File Transfer Protocol (FTP) can be used to migrate the ASCII flat file from the mainframe to a location on your PC. When the file has been moved from mainframe to PC, it may be opened using Microsoft Excel with the Text Import Wizard. This process involves 3 steps: Step 1 of 3 – click on Delimited, then click next; Step 2 of 3 – click on the Semicolon (delimitation character used in the flat file to separate the columns of data), then click next; Step 3 of 3 – click General Column data format, then click finish. The Excel file may then be saved. At Filename save, enter a filename with an extension of .xls and Save as type Microsoft Excel Worksheet. The spreadsheet may then be formatted as desired with the page and column headings, date of report and gridlines.

The following is an example of the JCL used to run this program:

```
//IRNEMSCE JOB (AGAOHNEMS002,4485),'CAP EQUIP',CLASS=D,
//          NOTIFY=MSJLV,MSGCLASS=A
//*****
//* READS THE NEMS EQUIPMENT FILE BACKUP                                     *
//*****
//DVNPDM5   EXEC N01Z
//CMPRINT DD SYSOUT=(A,PSBOK1C)
//CMWKF01   DD DSN=MSIRM.NEMSDD.EQUIPBAK,
//          DISP=(SHR,KEEP,KEEP)
//CMWKF02   DD DSN=MSIRM.NEMSDD.CCR267C,
//          DISP=(NEW,KEEP,DELETE),
//          DCB=(RECFM=VB,LRECL=50,BLKSIZE=5000),
//          SPACE=(TRK,(5,3),RLSE),
//          UNIT=SYSDA
//CMSYNIN   DD *
NEDEV1,XXXXX
%*
XXXXX
NEUCEQPC 0808
FIN
/*
//
```